

CLAIMS

1. Flanged member, intended to be included as a component in a flanged joint, for installation in a pressure equipment device, and having a first flanged end
5 with a first end surface intended to be assembled together with another end surface of a flanged end on another, second flanged member constituting a second component in said flanged joint, **characterized** in that said first end surface is slightly concave in the radial direction over at least a part of the extension thereof in the radial direction.
- 10 2. Flanged member according to claim 1, **characterized** in that said first end surface is concave over the entire extension thereof in the radial direction.
3. Flanged member according to claim 1, **characterized** in that said first end
15 surface is concave in the radial direction over at least an area being the area that essentially will be subjected to deforming forces when the flanged member is assembled together with another flanged member as well as during use.
4. Flanged member according to claim 1, **characterized** in that said first end
20 surface is concave in the radial direction over essentially that area which, during use, is foreseen to constitute contact surface against the corresponding end surface of said second flanged member.
5. Flanged member according to claim 1, **characterized** in that said first end
25 surface comprises more than one concave part surface in the radial direction and that said part surfaces may have different radii of curvature.
6. Flanged member according to any one of the preceding claims, **characterized** in that it has an internal, through, axial opening and that said first
30 end surface has an innermost abutment point against the corresponding end surface of said second flanged member, which abutment point is situated farthest in the radial direction, at said opening, as well as that the concavity of the first end surface extends all the way in to said abutment point.

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7. Flanged member according to any one of claims 1–5, **characterized** in that said first end surface has an innermost abutment point against the corresponding end surface of said second flanged member, which has an internal, through, axial opening, and that said innermost abutment point is situated farthest
5 in in the radial direction, at said opening, as well as that the concavity of the first end surface extends all the way in to said abutment point.
8. Flanged member according to any one of claims 1–7, **characterized** in that a conceived straight line X that connects the innermost point a of said first end
10 surface, in the radial direction, with the outermost point b thereof, in the radial direction, has a length L_x and that the concavity of the end surface has a maximum depth D_k in relation to a conceived plane surface produced by said line X, which depth D_k is of the order of 0,01 %–2 % of L_x .
- 15 9. Flanged member according to any one of the preceding claims, **characterized** in that said first end surface is inclined in the radial direction outwards and away from a conceived opposite end surface.
10. Flanged member according to any one of the preceding claims,
20 **characterized** in that at least a part of a transition area, between the surface of the flange directed away from said end surface and a part of the flanged member that is substantially parallel to the longitudinal axis of the member, is shaped as a substantially elliptical area.
- 25 11. Joint, comprising two joint halves in the form of two flanged members and included in a pressure equipment device, which members have at least one flanged end each having an end surface, and which members are assembled together via their end surfaces of said flanged ends, which surfaces are facing each other, **characterized** in that at least one of said flanged members is
30 designed in accordance with any one of claims 1–10.
12. Joint according to claim 11, **characterized** in that both of the flanged members are designed in accordance with any one of claims 1–10.

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PTO 29 JUN 2004

WO 03/062693

PCT/SE02/02448

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13. Joint according to any one of claims 11–12, **characterized** in that said end surfaces facing each other are inclined in the radial direction outwards so that they, in radial cross-section, form an angle to each other, when they have been brought together but before assembly, which is such that the distance between the
- 5 two end surfaces increases in the radial direction outwards, and at least one of said inclined end surfaces being slightly concave.
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